

Trang của tôi / Khoá học / Học kỳ I năm học 2021-2022 (Semester 1 - Academic year 2021-2022)

- / <u>Đại Học Chính Qui (Bacherlor program (Full-time study))</u>
- / Khoa Khoa học và Kỹ thuật Máy tính (Faculty of Computer Science and Engineering.) / Giáo Vụ Khoa Tin Học
- / Nhập môn điện toán (thực hành) (CO1006) L05 (DH HK211) / Week 2: Loop + Function / Homework Loop 1



```
Câu hỏi 1
Chính xác
Điểm 1,00 của 1,00
```

The Fibonacci sequence is 0, 1, 1, 2, 3, 5, 8, 13,..., where the first two terms are 0 and 1, and each term thereafter is the sum of the two preceding terms, that is,  $Fib_n = Fib_{n-1} + Fib_{n-2}$ .

Using this information, write a program that calculates the **nth** number in a Fibonacci sequence, where n is entered into the program by the user.

### Input:

• Integer n, 90 >= n >= 1

# Output:

· The calculated value

# For example:

Test	Input	Result	
Test 1	5	3	

```
Answer: (penalty regime: 0 %)
   Reset answer
   9 🔻
   10
           long int n,sn;
   11
           long int s1=0;
           long int s2=1;
   12
   13
           cin>>n;
           if(n<3)
   14
   15
                if(n==1) cout<<s1;</pre>
   16
   17
                else cout<<s2;</pre>
   18
           }
   19
           else
   20
           {
                                                BÓI HCMUT-CNCP
                for (int i=3;i<=n;i++)</pre>
   21
   22
   23
                    sn=s1+s2;
   24
                    s1=s2;
   25
                    s2=sn;
   26
   27
                cout<<sn;
   28
   29
           return 0;
   30
   31 }
```

	Test	Input	Expected	Got	
~	Test 1	5	3	3	~
~	Test 2	1	0	0	~
~	Test 3	2	1	1	~
~	Test 4	50	7778742049	7778742049	~
~	Test 5	90	1779979416004714189	1779979416004714189	~

Passed all tests! 🗸

Chính xác

Điểm cho bài nộp này: 1,00/1,00.



```
Câu hởi 2
Chính xác
Điểm 1,00 của 1,00
```

The Fibonacci sequence is 0, 1, 1, 2, 3, 5, 8, 13,..., where the first two terms are 0 and 1, and each term thereafter is the sum of the two preceding terms, that is,  $Fib_n = Fib_{n-1} + Fib_{n-2}$ .

Using this information, write a program that computes and stores the Fibonacci sequence in an integer array F, such that F[i] will store the (i+1)th number in a Fibonacci sequence. The size of the array is an input parameter which is entered by the user.

#### Input:

• Integer size, 90 >= size >= 1

### Output:

• Every value of the array, each value separated by 1 space character, no character after the last value

# Answer: (penalty regime: 0 %)

Reset answer

```
9
        long int size;
10
        long int s1=0;
11
        long int s2=1;
12
        cin>>size;
13
        long int arr[size];
14
        for(int i =1;i<=size;i++)</pre>
15
16
             if(i<3)
17
18
                 if(i==1) arr[i-1]=0;
                 else arr[i-1]=1;
19
20
             }
21
             else
22 ,
23
                 s1=s2;
24
25
                 s2=arr[i-1];
                                            BỞI HCMUT-CNCP
26
27
        for(int i=0;i<size;i++) cout<<arr[i]<<" ";</pre>
28
29
        return 0;
30
31 }
```

	Test	Input	Expected	Got	
~	Test 1	7	0 1 1 2 3 5 8	0 1 1 2 3 5 8	~
~	Test 2	1	0	0	~
~	Test 3	2	0 1	0 1	~

	Test	Input	Expected	Got	
~	Test 4	50	0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946 17711 28657 46368 75025 121393 196418 317811 514229 832040 1346269 2178309 3524578 5702887 9227465 14930352 24157817 39088169 63245986 102334155 165580141 267914296 433494437 701408733 1134903170 1836311903 2971215073 4807526976 7778742049	0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946 17711 28657 46368 75025 121393 196418 317811 514229 832040 1346269 2178309 3524578 5702887 9227465 14930352 24157817 39088169 63245986 102334155 165580141 267914296 433494437 701408733 1134903170 1836311903 2971215073 4807526976 7778742049	~
~	Test 5	90	0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946 17711 28657 46368 75025 121393 196418 317811 514229 832040 1346269 2178309 3524578 5702887 9227465 14930352 24157817 39088169 63245986 102334155 165580141 267914296 433494437 701408733 1134903170 1836311903 2971215073 4807526976 7778742049 12586269025 20365011074 32951280099 53316291173 86267571272 139583862445 225851433717 365435296162 591286729879 956722026041 1548008755920 2504730781961 4052739537881 6557470319842 10610209857723 17167680177565 27777890035288 44945570212853 72723460248141 117669030460994 190392490709135 308061521170129 498454011879264 806515533049393 1304969544928657 2111485077978050 3416454622906707 5527939700884757 8944394323791464 14472334024676221 23416728348467685 37889062373143906 61305790721611591 99194853094755497 160500643816367088 259695496911122585 420196140727489673 679891637638612258 1100087778366101931 1779979416004714189	0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946 17711 28657 46368 75025 121393 196418 317811 514229 832040 1346269 2178309 3524578 5702887 9227465 14930352 24157817 39088169 63245986 102334155 165580141 267914296 433494437 701408733 1134903170 1836311903 2971215073 4807526976 7778742049 12586269025 20365011074 32951280099 53316291173 86267571272 139583862445 225851433717 365435296162 591286729879 956722026041 1548008755920 2504730781961 4052739537881 6557470319842 10610209857723 17167680177565 27777890035288 44945570212853 72723460248141 117669030460994 190392490709135 308061521170129 498454011879264 806515533049393 1304969544928657 2111485077978050 3416454622906707 5527939700884757 8944394323791464 14472334024676221 23416728348467685 37889062373143906 61305790721611591 99194853094755497 160500643816367088 259695496911122585 420196140727489673 679891637638612258 1100087778366101931 1779979416004714189	*

Passed all tests! ✔

Chính xác

Điểm cho bài nộp này: 1,00/1,00.



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■ Function 3

Chuyển tới...

Homework Loop 2 ▶

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